

**METHOD AND APPARATUS FOR DEVICE
CONTROLLED GENE EXPRESSION**

Abstract

5 A gene regulatory system controls gene therapy by emitting one or more
forms of energy that regulate gene expression by triggering promoters. The system
includes a sensor to sense a signal indicative of a need for the gene therapy as well
as responses to the gene therapy. The regulation of the gene expression is
controlled based on the sensed signal and/or a user command. In one embodiment,
10 the system delivers one or more electrical therapies in conjunction with the gene
therapy.